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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,989	02/11/2004	Claes-Goran Carlsson	6485-0029WOUS-1	8227
7590 08/26/2005			EXAMINER	
Richard R. Michaud McCormick, Paulding & Huber LLP CityPlace II 185 Asylum Street Hartford, CT 06103			HOPKINS, ROBERT A	
			ART UNIT	PAPER NUMBER
			1724	
DATE MAILED: 08/26/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/777,989

Applicant(s)

CARLSSON ET AL.

Examiner

Robert A. Hopkins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 11-13, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 5-10, 14-16 and 19 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 10/415,173.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2-11-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Oath/Declaration

A new declaration is required. The date listed for the parent application 10/415,173 is not consistent with the date in the PTO records. The filing date of the 10/415,173 application should be changed to February 9, 2004.

Claim Objections

Claim 16 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 16 depends on claim 25, which is not present in the application. Does applicant mean claim 5? Correction is requested.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4,11,12,17,18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Peltzer, Sr(2958461).

Peltzer, Sr teaches a centrifugal separator for freeing a fluid from particles suspended therein, the particles having a density greater than that of the fluid, the

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centrifugal separator comprising a rotor(10), which is rotatable about a rotational axis, means(14) for rotating the rotor about the rotational axis, a plurality of separation discs(36), which are arranged coaxially with the rotational axis and which delimit separation disc flow passages therebetween for through flow of the fluid, and a spring element(108) to compress the plurality of separation discs in the direction of the rotational axis. Peltzer, Sr further teaches a housing(11) which surrounds the rotor, the rotor and the housing delimiting a receiving chamber for cleaned fluid as well as separated particles. Peltzer, Sr further teaches wherein the rotor has a central inlet(63) for fluid intake at a first axial end and central space in fluid communication with the central inlet. Peltzer, Sr teaches wherein the separation discs are supported by the rotor and the separation disk flow passages are in fluid communication with the central space in the rotor and in fluid communication with the receiving chamber. Peltzer, Sr further teaches wherein the plurality of separation disks includes a stack of substantially conical discs. Peltzer, Sr further teaches wherein the substantially conical separation discs each have an apex end and a base end, and the base ends of the separation discs face axially towards the central inlet of the rotor. Peltzer, Sr further teaches a stationary supporting member, a bearing(13), a shaft(12) connected to the rotor and supported by the stationary member via the bearing, an annular space(63) defined around the rotational axis and situated between the stationary supporting member and the means for rotating the rotor, a fluid inlet which extends the annular area and is in fluid communication with the central inlet of the rotor. Peltzer, Sr further teaches wherein the spring is a helical compression spring.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 11-13, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sevin et al(3234716) taken together with Peltzer, Sr(2958461).

Sevin et al teaches a centrifugal separator for freeing a fluid from particles suspended therein, the particles having a density greater than that of the fluid, the centrifugal separator comprising a rotor, which is rotatable about a rotational axis, means(9) for rotating the rotor about the rotational axis, a plurality of separation discs(15), which are arranged coaxially with the rotational axis and which delimit separation disc flow passages therebetween for through flow of the fluid. Sevin et al is silent as to a spring element to compress the plurality of separation discs in the direction of the rotational axis. Peltzer, Sr teaches a centrifugal separator for freeing a fluid from particles suspended therein, the particles having a density greater than that of the fluid, the centrifugal separator comprising a rotor(10), which is rotatable about a rotational axis, means(14) for rotating the rotor about the rotational axis, a plurality of separation discs(36), which are arranged coaxially with the rotational axis and which delimit separation disc flow passages therebetween for through flow of the fluid, and a spring element(108) to compress the plurality of separation discs in the direction of the rotational axis. It would have been obvious to someone of ordinary skill in the art the

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time of the invention to provide a spring element for the apparatus of Sevin et al in order to maintain the spacing of the separation discs of the rotor during a pressurized separation step.

Sevin et al further teaches a housing which surrounds the rotor , the rotor and the housing(1) delimiting a receiving chamber for cleaned fluid as well as separated particles. Sevin et al further teaches wherein the rotor has a central inlet(31) for fluid intake at a first axial end and central space in fluid communication with the central inlet. Sevin et al further teaches wherein the separation discs are supported by the rotor and the separation disk flow passages are in fluid communication with the central space in the rotor and in fluid communication with the receiving chamber. Sevin et al further teaches wherein the plurality of separation disks includes a stack of substantially conical discs. Sevin et al further teaches wherein the substantially conical separation discs each have an apex end and a base end, and the base ends of the separation discs face axially towards the central inlet of the rotor. Sevin et al further teaches wherein each substantially conical separation disc has several central through openings forming together with interspaces between the separation discs the central space of the rotor. Peltzer, Sr further teaches wherein the spring is a helical compression spring.

Allowable Subject Matter

Claims 5-10,14,15,19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 5 recites "further including at least one supply member configured to direct a driving fluid towards the plurality of blades, the impingement of the driving fluid on the blades causing the rotor to rotate about the rotational axis." Sevin et al and Peltzer, Sr fail to teach at least one supply member configured to direct a driving fluid towards the plurality of blades, the impingement of the driving fluid on the blades causing the rotor to rotate about the rotational axis. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide at least one supply member configured to direct a driving fluid towards the plurality of blades, the impingement of the driving fluid on the blades causing the rotor to rotate about the rotational axis because neither Sevin et al nor Peltzer, Sr teach such a modification. Claims 14 and 15 depend on claim 5 and hence would also be allowable upon incorporation of claim 5 into claim 1.

Claim 6 recites "further including first and second outlets in fluid communication with the receiving chamber, the first outlet configured to provide egress from the receiving chamber of fluid having been substantially freed from particles, and the second outlet configured to provide egress from the receiving chamber of particles having been substantially separated from the fluid". Both Sevin et al and Peltzer, Sr provide for only a single outlet from the receiving chamber. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide first and second outlets in fluid communication with the receiving chamber, the first outlet configured to provide egress from the receiving chamber of fluid having been substantially freed from particles, and the second outlet configured to provide egress

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from the receiving chamber of particles having been substantially separated from the fluid because neither Sevin et al nor Peltzer, Sr teach such a modification. Claims 7-10 depend on claim 6 and hence would also be allowable upon incorporation of claims 6 and 2 into claim 1.

Claim 19 recites "wherein the spring is secured to the rotor with a screw". Peltzer, Sr teaches a spring, however the spring is secured to the rotor housing. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a spring which is secured to the rotor with a screw because Peltzer, Sr fails to teach such a modification.

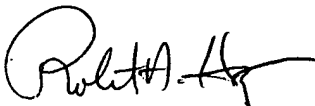
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A. Hopkins whose telephone number is 571-272-1159. The examiner can normally be reached on Monday-Friday, 7am-4pm, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rah
August 24, 2005


ROBERT A. HOPKINS
PRIMARY EXAMINER
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